

Serial No.: 09/663,021
Group Art Unit: 2815

AMENDMENT

IN THE CLAIMS:

- Please replace pending claim 1 with the following clean amended claim 1:

Sub B1
A1

1. (Amended) A semiconductor device, comprising:
a semiconductor with a dielectric layer formed thereon, wherein said dielectric layer overlays a region on said semiconductor and has a channel opening provided therein;
a first barrier layer disposed in said dielectric layer lining said channel opening, said first barrier layer of a metallic barrier material;
a conductive material disposed in said first barrier layer in said channel opening; and
a second barrier layer disposed over said conductive layer in said channel opening, said second barrier layer of a metallic barrier material, whereby said conductive material is totally enclosed in metallic barrier material.

- Please add the following new claims 19 and 20:

Sub B1
A2

19. (New) A semiconductor device, comprising:
a semiconductor;
a dielectric layer formed on the semiconductor, said dielectric layer having a channel opening provided therein;
a recessed channel in said channel opening including:
a first barrier layer disposed in said channel opening, said first barrier layer of a metallic barrier material; and
a conductive material disposed in said first barrier layer; and
a self-aligned semiconductor interconnect barrier disposed over said recessed channel in said channel opening.

20. (New) The semiconductor device as claimed in claim 19 wherein said first barrier layer and said self-aligned semiconductor interconnect barrier totally enclose the conductive material.